

S.D.E.

M.B.A. SEM-I (2010 COURSE)(3 YEAR COURSE) : SUMMER -
2018

SUBJECT: MANAGEMENT SCIENCE AND DECISION TECHNOLOGY

Day: **Tuesday**
Date: **12/06/2018**

S-2018-4444

Time: **10.00 A.M. TO 1.00 P.M.**
Max. Marks: 70

N.B.:

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from section –II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.
- 4) Use of non-programmable **CALCULATOR** is allowed.
- 5) Graph papers and statistical tables will be provided if necessary.

SECTION-I

- Q.1** Explain the importance of Management Science Techniques for decision making (10)
- Q.2** Explain the contribution of Behavioural Science School to management thoughts. (10)
- Q.3** Calculate the mean and median from the following distribution: (10)

Class	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Frequency	4	12	40	41	27	13	9	4

- Q.4** Write a detailed note on Decision Theory. (10)
- Q.5** Write short notes on any **TWO** of the following: (10)
- a) Transportation Problem
 - b) Regression
 - c) Applications of LPP
 - d) Scientific Management School

SECTION-II

- Q.6** A belt snapping for conveyors in an open cast mine occur at the rate of 2 per shift. There is only one hot plate available for vulcanising, and it can vulcanise on an average 5 belts snap per shift. (15)
- i) What is the probability that when a belt snaps, the hot plate is readily available?
 - ii) What is the average number of belts in the system?
 - iii) What is the waiting time of an arrival?
 - iv) What is the average waiting time plus vulcanising time?
- Q.7** Comment on when the data is not sufficient to formulate a mathematical model as a decision making tool, we have to resort to Simulation. Does it really help? Discuss. (15)
- Q.8** Assign workers 1, 2, 3, 4 to jobs A, B, C, D. Time taken by workers for different jobs are given in the matrix: (15)

Workers	Jobs			
	A	B	C	D
1	45	40	51	67
2	55	40	61	53
3	49	52	48	64
4	41	45	60	55

* * * *